

APPENDIX UNDER 37 CFR 1.121(c)

1-8. (cancelled)

9. (original) A method of automatically hybridizing a polynucleotide probe to a target, comprising the steps of

preparing a section of tissue or cells to be examined;

hybridizing the tissue section or cellular preparation with a polynucleotide probe composition in the presence of low molecular weight dextran sulfate wherein said probe composition contains at least one sequence complementary to a coding region of the target;

removing unhybridized probe from said tissue section or cellular preparation; and

detecting the hybridized probe-target combination.

10. (original) The method of claim 9 wherein said polynucleotide probe composition is selected from the group consisting of DNA probes and RNA probes.

11. (original) The method of claim 9 wherein said tissue section is a paraffin-embedded tissue section.

12. (original) The method of claim 9 wherein said tissue section is a fresh-frozen tissue section.

13. (original) The method of claim 9 wherein said polynucleotide probe composition is labeled with a detectable label.

14. (original) The method of claim 9 wherein said label is selected from the group consisting essentially of fluorophores, haptens and chromogens.

15. (original) The method of claim 9 wherein the step of preparing a section of tissue or cells to be examined comprises a liquid-based preparation step.

16. (original) The method of claim 9 wherein the step of preparing a section of tissue or cells to be examined comprises contacting the target RNA or DNA with blocking DNA to suppress background cross-reactive signal.

17. (original) The method of claim 9 wherein said hybridization, removal and detection steps are performed by an automated tissue staining instrument.

18. (original) The method of claim 9 wherein said probe composition is arrayed on a solid substrate.